Site Team Evaluation Prioritization

General Hydraulics
AKA North American Tool Co.
South Beloit, Winnebago Co.
Lan 2010450022
ILD 984767806
SF/HRS

CERCLA Report

Illinois Environmental Protection Agency

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SECTION I -- SITE BACKGROUND

1.1 INTRODUCTION

General Hydraulics was added to the Comprehensive Environmental Response, Compensation and Liability Inventory System (CERCLIS) on November 29, 1988 in response to requests for discovery by the Illinois Environmental Protection Agency (IEPA). The request for discovery was initiated after abandoned, leaking drums and contaminated soils were found at the site. A Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Preliminary Assessment (PA) was conducted in May, 1990, and a Screening Site Inspection (SSI) with sampling was conducted in November, 1991 by Illinois EPA. A Focused Site Inspection Prioritization was conducted by a USEPA contracted environmental company in August 1995. No environmental samples were collected during the 1995 CERCLA event.

CERCLA Site Team Evaluation Prioritizations (STEPs) are conducted to determine current site conditions in order to update the status of outstanding Screening Site Inspections performed before the implementation of the revised Hazard Ranking System. The STEPs examine and evaluate the threats posed by the site and provide sufficient information to determine the future course of action.

1.2 SITE DESCRIPTION

General Hydraulics is the name of a defunct business that operated a lawn and garden equipment manufacturing facility in South Beloit, Illinois (figure 1). The site is located in the southeast

quarter of Section 6, Township 46 North, Range 2 East of the Third Principal Meridian in Winnebago County. The facility was comprised of three one story buildings located in a mixed industrial and residential area near the center of the city. The site is bounded by Charles Avenue to the north, and Elmwood Avenue to the south. An alleyway and nine residences lie between Hayes Avenue and the site, forming the eastern boundary. The western boundary is the Chicago, Minneapolis, St. Paul and Peoria Railroad tracks. The Rock River is west of the tracks (figure 2).

1.3 SITE HISTORY

According to IEPA files, the Chicago, Minneapolis, St. Paul and Peoria Railroad owned the site as part of their right-of-way prior to General Hydraulics. The Railroad allowed fill material to be dumped in the swampy areas of the site. This increased the surficial elevation by several feet. The dumping leveled the site and allowed for future development.

Mr. Glen Hanson began General Hydraulics after he built three buildings on eight acres purchased from the Railroad in the early 1950's. General Hydraulics manufactured various farm and garden equipment including sprayers, mowers and snow blowers. The fiberglass operations were housed in the metal building in the northeast corner of the site. Tanks and sprayers were made in this building. The metal building in the northwest portion of the site contained the welding and fabricating operations. The third structure was a masonry building which contained the machine shop (figures 2 & 3). Most of General Hydraulic's wastes were generated in the machine shop. They were mainly cutting oils and solvents.

In 1984, General Hydraulics declared bankruptcy and in 1985, the Bankruptcy Court parceled out the property for sale. A prospective buyer of the machine shop parcel, rescinded their purchase agreement after abandoned, leaking drums of waste and visibility contaminated soil were found at the site.

The IEPA inspected the site on May 2, 1986, after the abandoned wastes had been reported. Two separate dumping areas were identified. The first contained a reddish-brown granular material. The other contained an assortment of wastes. Wooden crates, tires and trash were found along with an estimated 112 to 120, 55-gallon drums and 25 to 50 five-gallon pails.

The Bankruptcy Court contracted Frinks Industrial Waste (FIW) to sample and remove the waste. Composite samples were obtained from the drums and analyzed for corrosivity, ignitability, flammability, reactivity and total metals. Nine drums were found to contain hazardous waste based on flashpoint. Several drums were found to be toxic for lead, chromium and barium by the EP Toxicity test. All of the drums were staged and removed by FIW.

During the drum removal, an on-site well was sampled. The 15 foot deep well is located in the northwest metal building which was purchased by Trenwyth Industries. The well contained tetrachloroethene (PCE) at a concentration of 1.8 ug/l (ppb). Subsequent sampling of the Trenwyth well and the Hanson General Products well (owners of the northeast portion), showed PCE concentrations at 1.4 ug/l and 1.3 ug/l respectively.

The Bankruptcy Court contracted M. Rapps Associates, Incorporated to conduct a groundwater study of the site. M. Rapps installed four monitoring wells in early 1987. A very slight west-southwest groundwater gradient was identified. The two down gradient monitoring wells contained concentrations of PCE at 5.8 ug/l in well MW2 and 4.8 ug/l in well MW4.

North American Tool Company (current owners of the southern half) contracted Warzyn to conduct a soil gas survey and collect soil and groundwater samples from their parcel of the site. In 1991, 3870 cubic feet of contaminated soil was removed from the area where the leaking drums had been found. The soil was stockpiled on plastic and left uncovered on-site. The pile has been moved several times but still remains on site. The excavated area was filled in, graded and covered with rock. Soil vapor extraction pipes were placed in the rock fill. NATCo has constructed a new addition over this area. Any soil gas is vented through a standpipe located along the south wall of the new addition.

1.4 APPLICABILITY OF OTHER STATUTES

Both Trenwyth and NATCo are operating under Resource Conservation and Recovery Act (RCRA) regulations. Trenwyth is considered a Small Quantity Generator of hazardous waste. NATCo is a generator of special waste. General Hydraulics was a non-notifier that declared bankruptcy in 1985 and was not regulated by RCRA.

Given the nature of the activities that occurred at the General Hydraulic's facility or that

currently occur at NATCo and Trenwyth, it is believed that the General Hydraulics facility was not regulated under the provisions of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Atomic Energy Act (AEA) or the Uranium Tailings Radiation Control Act (UMTRCA).

SECTION II -- PREVIOUS CERCLA ACTIVITIES

2.1 PREVIOUS SAMPLING ACTIVITIES

The IEPA conducted a CERCLA Preliminary Assessment in May, 1990 and an Screening Sight Inspection was conducted on November 5 and 6, 1991. Nine groundwater samples and seven soil samples were collected from the site. Two groundwater samples were collected from Trenwyth Industries' wells and the rest were collected from the residences located between the alley and Hayes Avenue. The two residences located at the northern end of Hayes Ave. contained tetrachloroethene (PCE) at levels of 7 ug/l each. This is above the 5 ug/l USEPA Maximum Contaminant Levels (MCLs) established for drinking water. The contaminants were attributable to the site.

SECTION III -- STEP SAMPLING ACTIVITIES

3.1 INTERVIEWS & SITE RECONNAISSANCE

On March 12, 1997, the IEPA met with Cy Hotek of Trenwyth Midwest Industries. Mr. Hotek explained that Trenwyth recently purchased the northeast quarter of the site that was formerly owned by Accra Plastics. The building on the new property is vacant but will be undergoing

renovation. Mr. Hotek agreed to allow the IEPA to collect water and soil samples from the Trenwyth property.

After the Trenwyth meeting, the IEPA met with Curt Lansbery and Mike Slavin of North American Tool Company. Mr. Lansbery explained how their new addition was constructed over vent pipes within a layer of gravel to allow for soil out-gassing. He indicated that large portions of the South Beloit area were filled in with slag, cinders and other materials. Large chunks of slag could be observed at the surface throughout their property. Mr. Lansbery expressed NATCo's willingness to cooperate with the IEPA during the up-coming sampling event. Permission to sample NATCo's portion of the General Hydraulics site was granted.

3.2 SAMPLING ACTIVITIES

On June 24 and 25, the IEPA conducted a CERCLA STEP sampling event. Seven residential drinking water, six groundwater and five soil samples were collected. The drinking water samples were collected to identify any threats to human health. The groundwater samples were collected to identify contamination in the groundwater away from the residential area. The soil samples were collected to identify any residual contaminants in the soil pile and within the on-site soils. Figure 4 identifies the sample locations and Table 1 identifies and describes the samples. Appendix A contains the photographic documentation. Brian Gallagher from Hanson Engineers, Incorporated represented NATCo during the sampling event and collected split samples from the NATCo sample locations.

The soil samples were collected using stainless steel trowels or augers that had been decontaminated prior to use, in accordance with IEPA guidelines. The background soil sample was collected from property owned by Trenwyth and located across Charles Street from the site. All of the soil samples were collected from the deepest layer that could be penetrated through the slag and cinders. This was generally up to 12 inches in depth. Samples X106 - X109 were to be collected at greater depths but were not collected because the slag beneath the 12 inch depth could not be penetrated. Soil gas readings at the 12 inch depth did not show readings above background levels.

Duplicate samples X102 and X103 were collected from the pile of soil removed during the 1991 Warzyn soil investigation of the drum/pail area. The soil had been stored on plastic and allowed to vent. The pile had been relocated and turned on several occasions. The samples were collected from the center of the pile to determine if any contaminants remain within the pile.

Groundwater samples G101 - G103 were collected from the three remaining monitoring wells. The wells were only sampled for volatiles because previous sampling had characterized the groundwater composition. Samples G104 - G107 were collected utilizing a Geoprobe to bore a hole to the watertable. The full Target Compound List (TCL) was collected to identify groundwater contamination in areas away from the monitoring wells.

The drinking water samples were collected from the two Trenwyth buildings and two residences adjacent to the site. Previous sampling indicated TCE and PCE in the residential wells.

3.3 SAMPLE RESULTS

"Key Samples" are analytical data obtained during the STEP investigation that indicate observed contamination and/or meet the Hazard Ranking System (HRS) definition of an observed release. Analysis of on-site soil samples indicate the presence of four volatiles, two pesticides and three inorganics. Analysis of the monitoring well and Geoprobe groundwater samples indicate the presence of five volatiles, one semivolatile and seven inorganics. Tetrachloroethene, acetone and four inorganics were identified in the drinking water samples.

Table 1 identifies and describes the samples. Tables 2 - 4 identify the key samples for the soil and water samples. Appendix B contains the Target Compound List and Appendix D (Volume II) contains the complete analytical package. The analytical results were compared to the CERCLA Superfund Chemical Data Matrix (SCDM) Benchmarks and Removal Action Levels (RALs).

SOILS

1,1,1-Trichloroethane, Trichcloroethene and Tetrachloroethene were detected at levels above the Instrument Detection Limit (IDL) but below the Contract Required Detection Limit (CRDL) in the on-site samples but were not found in the background sample. Chromium, copper and nickel

were detected in the on-site soils. Sample X104 located in the slag area had the highest inorganic contaminant concentrations. None of the samples had concentrations that met or exceeded the USEPA SCDM benchmarks.

GROUNDWATER

The three monitoring wells were only analyzed for volatile contaminants. Monitoring Well #2 contained 1,1-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethene (total), 1,1,1-trichloroethane and trichloroethene. The other two wells had no detectable contaminants.

The two on-site Geoprobe groundwater locations contained 1,1-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethene (total), 1,1,1-trichloroethane and trichloroethene as well as cadmium, chromium, lead, manganese, nickel and vanadium. There were no volatile contaminants found in the background sample. However, high to very high inorganic concentrations were detected. The contaminants found in both the monitoring wells and the Geoprobe wells indicate that an observed release of contaminants into the groundwater.

DRINKING WATER

Four drinking water wells were sampled on and adjacent to the site. Tetrachloroethene at levels just below the Maximum Contaminant Level (MCL) for drinking water was found in each of the well samples. Barium and copper were detected at levels below USEPA SCDM benchmarks.

SECTION IV -- SITE SOURCES

4.1 SOURCE DEFINITION

The November 1991 SSI identified the soil pile and the on-site contaminated soil as the two site sources. The soil pile is approximately 100 feet long, eighteen feet wide, four feet high and is roughly triangular in shape. The soil has remained in the pile since it was excavated during the 1991 soil investigation by Warzyn. The analytical results of this CERCLA sampling event indicate that the volatile organic contaminants within the soil pile have out-gassed to below CRDL levels. The inorganic contaminants that remain are below USEPA benchmarks.

The on-site contaminated soil covers an area of approximately one acre. The property is covered by maintained trees and grass. The contaminants were 1,1,1-trichloroethane, trichloroethene, tetrachloroethene, heptachlor epoxide, chromium, copper and nickel at levels above instrument detection levels but are well below USEPA SCDM and IEPA TACO objectives. The volatile contaminants are attributable to the site. The inorganic contaminants are most likely attributable to the cinder and slag fill in the South Beloit area.

SECTION V -- MIGRATION PATHWAYS

The CERCLA Site Assessment Program identifies three migration pathways and one exposure pathway by which hazardous substances may pose a threat to human health and/or the environment. Consequently, sites are evaluated on their known potential impact to these four pathways. The pathways evaluated are soil exposure, groundwater migration, surface water

migration and air migration.

This section presents and discusses information collected during the CERCLA STEP inspection of the General Hydraulics site. This information, together with the information documented in other sources will be utilized in analyzing the site's impact on the four pathways and the various human and environmental targets within the established target distance limits. Discussions of the pathways will include pathway descriptions, contaminant sources and targets such as human populations, fisheries, endangered species, wetlands and other sensitive environments.

5.1 SOIL EXPOSURE PATHWAY

The entire site is composed of poorly drained loamy soils. The top portion to a depth of several feet has been filled with cinders and slag. The site is well vegetated with maintained grasses and trees although there are some exposed slag blocks at the surface. It is situated in a location not frequented by the public, however site access is not restricted in any way. The on-site field is utilized by site workers.

Approximately 150 workers are employed at the two companies currently on-site. There are no schools or daycare facilities on or adjacent to the site. However, less than 100 yards from the site is St. Peters School. Soil collected during the 1991 SSI sampling event at St. Peters school did not have any detectable contamination. The population of South Beloit (est. at 4072) lies within the four-mile Target Distance Limit. Five soils were collected to characterize the nature of

contaminants existing in the on-site soils. The on-site soils contained volatiles, heptachlor epoxide and inorganics. None of the contaminants exceeded USEPA SCDM benchmarks.

5.2 GROUNDWATER PATHWAY

The Winnebago and Boone County Soil Survey indicates the site is on poorly drained alluvial, loamy soils. According to Groundwater Geology in Winnebago County, Illinois (1960), the northern Illinois region, including Winnebago County was completely overridden by Pleistocene Epoch glacial ice. The unconsolidated materials were deposited by the melt waters of the numerous glacial advances. The sand and gravel outwash deposits are generally greater than 200 feet thick in the major valley areas of the Rock River. A distinct unconformity separates the underlying Paleozoic bedrock formations from the Pleistocene deposits. A highly developed drainage system was eroded into the bedrock surface during the glacial advances and is now approximately 400 feet below the gently undulating surface.

There are two general types of geohydrological units within Winnebago County. They are the glacial drift aquifers and the bedrock aquifers. They are classified by characteristic, origin, stratigraphic positioning, water-bearing properties and usage. The uppermost aquifers are within the glacial drift of the Pleistocene age. There were several glacial advances that deposited the drift materials. The deposits are relatively coarse textured unconsolidated sands and gravels associated primarily with glacial outwash deposition. The Farmdale substage deposits are the most extensive, thickest and most widely used as aquifers. The highly variable character of the

glacial drift deposits has created diverse hydrological conditions within the drift. Layers and lenses of drift have a wide range of permeabilities. Artesian and leaking artesian conditions may occur when permeable layers are overlain by less permeable layers. Other aquifers without overlying confining layers may be at water table-conditions.

Nine residences lie between the site and Hayes avenue and one residence is on Charles Avenue. These residences are on private wells into the shallow sand and gravel aquifer. The well depths are approximately 20 to 30 feet deep. Previous sampling indicated volatile contaminants above the MCL levels. Two residences were re-sampled to identify current conditions. There are still concentrations of PCE at levels just below the 5 ppb MCL benchmark in all of the drinking water samples. TCE and PCE concentrations still exist at levels above background in the other groundwater samples.

The PCE in residential wells may be influenced by two factors. The first condition involves changing water table conditions adjacent to the Rock River near the site. High river levels may alter the groundwater flow patterns away from the river. The second factor involves the usage of local wells near the site. High groundwater demands on and adjacent to the site may cause periodic local fluctuations in the groundwater flow patterns away from the river. These factors would allow the contaminated groundwater to flow away from the Rock River during high river levels and/or high water demand and explains the range of contaminant concentrations identified in the local wells.

Drinking water for the population of South Beloit is supplied by Wisconsin Power & Light. Their Well #3 is located in South Beloit at a depth of 1300 feet and is located approximately three tenths of a mile from the site. The distance and depth of the well make it unlikely to have been effected by the site contaminants. The North Park Public Water District has three municipal wells within the 4-mile Target Distance Limit. One well is 258 feet deep and the other two are 780 feet deep. The Village of Rockton has three wells within the 4-mile Target Distance Limit at 120 feet, 728 feet and 650 feet in depth. None of the wells have any detectable contamination.

5.3 SURFACE WATER PATHWAY

The Rock River is located approximately 800 feet west of the site. Surface water runoff from the site flows to the west/southwest, under a culvert of the railroad and into the Rock River. This point is the start of the 15-mile Target Distance Limit for the river. The end of the 15-mile Target Distance Limit is located at Latham Road in Latham Park. The Rock River is considered a recreational river and is utilized for fishing. The Rockton gaging station (approximately five miles downstream) established an average flow rate (discharge) of 4,073 cubic feet per second. There are several wetlands along the Rock River. The site itself experiences frequent flooding events and a high water table that fluctuates with the river levels.

There are no known drinking water intakes along the 15-mile Target Distance Limit. According to the Illinois Department of Conservation, there are no sensitive environments along the Rock River and within one mile of the site. Because of the subsurface nature of the contamination and

the well vegetated sight, no surface water or sediment samples were collected.

5.4 AIR PATHWAY

Several residences are located adjacent to or near the site. There are no access restrictions to the site. However, the site is well maintained with trees and grass. The soil pile has some vegetative growth which limits the potential for particulate dispersion. A comparison of the analytical data associated with the soil pile has indicated that the volatile contaminants within the soil pile have been vented to below CRDL levels. No air samples were collected.

SECTION VI -- ADDITIONAL RISK BASED OBJECTIVES

This section provides additional screening objectives used to evaluate the General Hydraulics site. These objectives have not been used to assess the site for CERCLA purposes. They are provided as additional references or to identify potential alternatives to the CERCLA remedial process. The IEPA's Tiered Approach to Corrective Action Objectives (TACO) guidance is based on a three tier system that utilizes residential and industrial/commercial scenarios and contains objectives for soil and groundwater matrices. It should be noted that TACO objectives have not been established for all analytes on the Target Compound List (TCL). Therefore, any risk posed by such contaminants cannot be evaluated at this time.

6.1 TACO SOIL OBJECTIVES

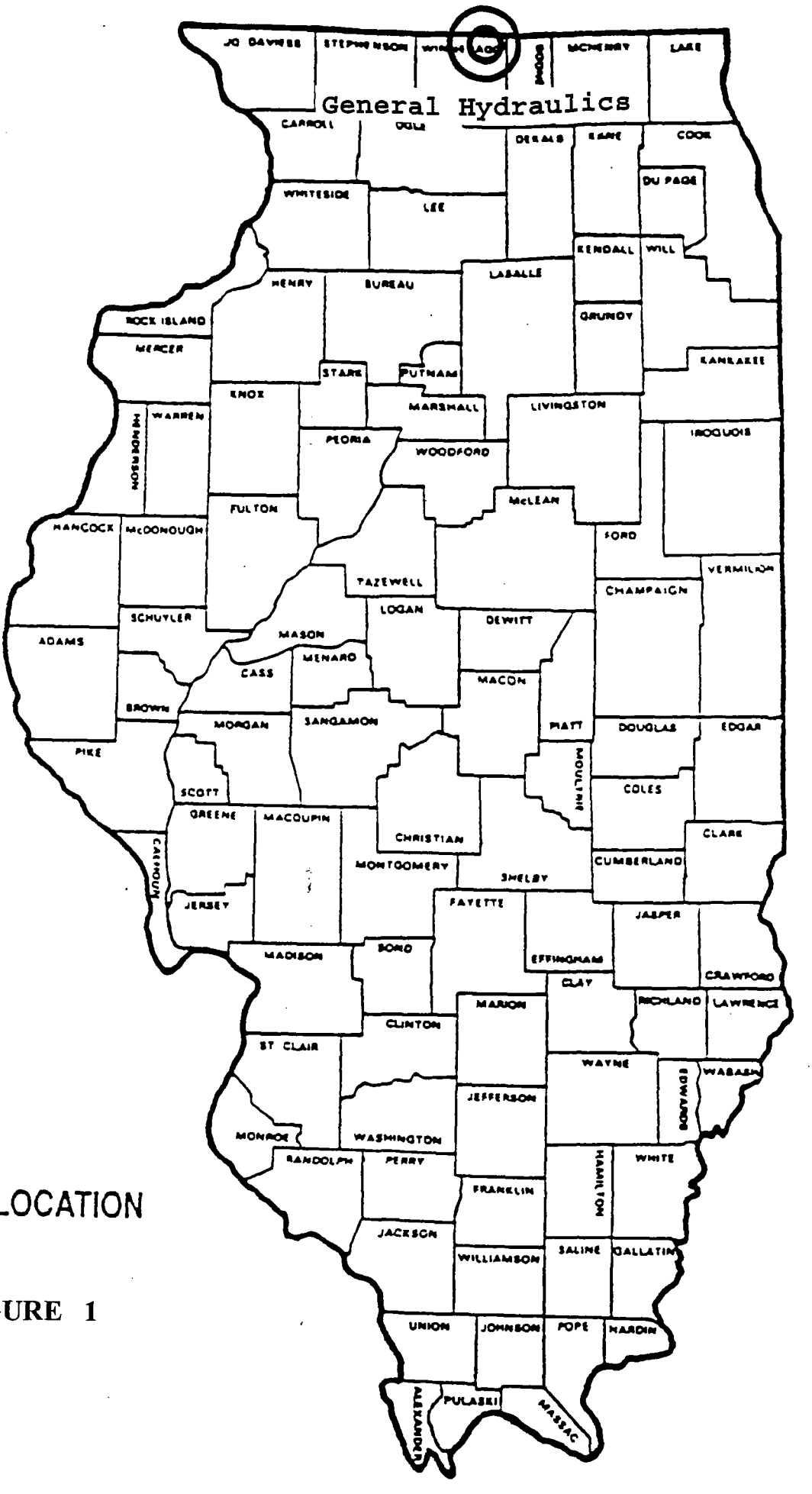
Tier 1 of TACO contains a set of objectives that are based on simple numeric models and are

presented in look-up tables within the guidance. Each set of values is specific to the intended use of the property: residential or industrial/commercial. The site was compared to both TACO Industrial and Residential scenarios. The Residential scenario provides more stringent cleanup objectives. The values for soil exposure are specific to three exposure routes: ingestion, inhalation, and migration to groundwater.

None of the soil samples collected during the CERCLA STEP contained any contaminants above the TACO Tier 1 Residential objectives. The inorganic contaminants were compared to the Tier I Residential scenario. Alternative objectives may be obtained in TACO Appendix B: Table C TACO - for pH Specific Soil Objectives.

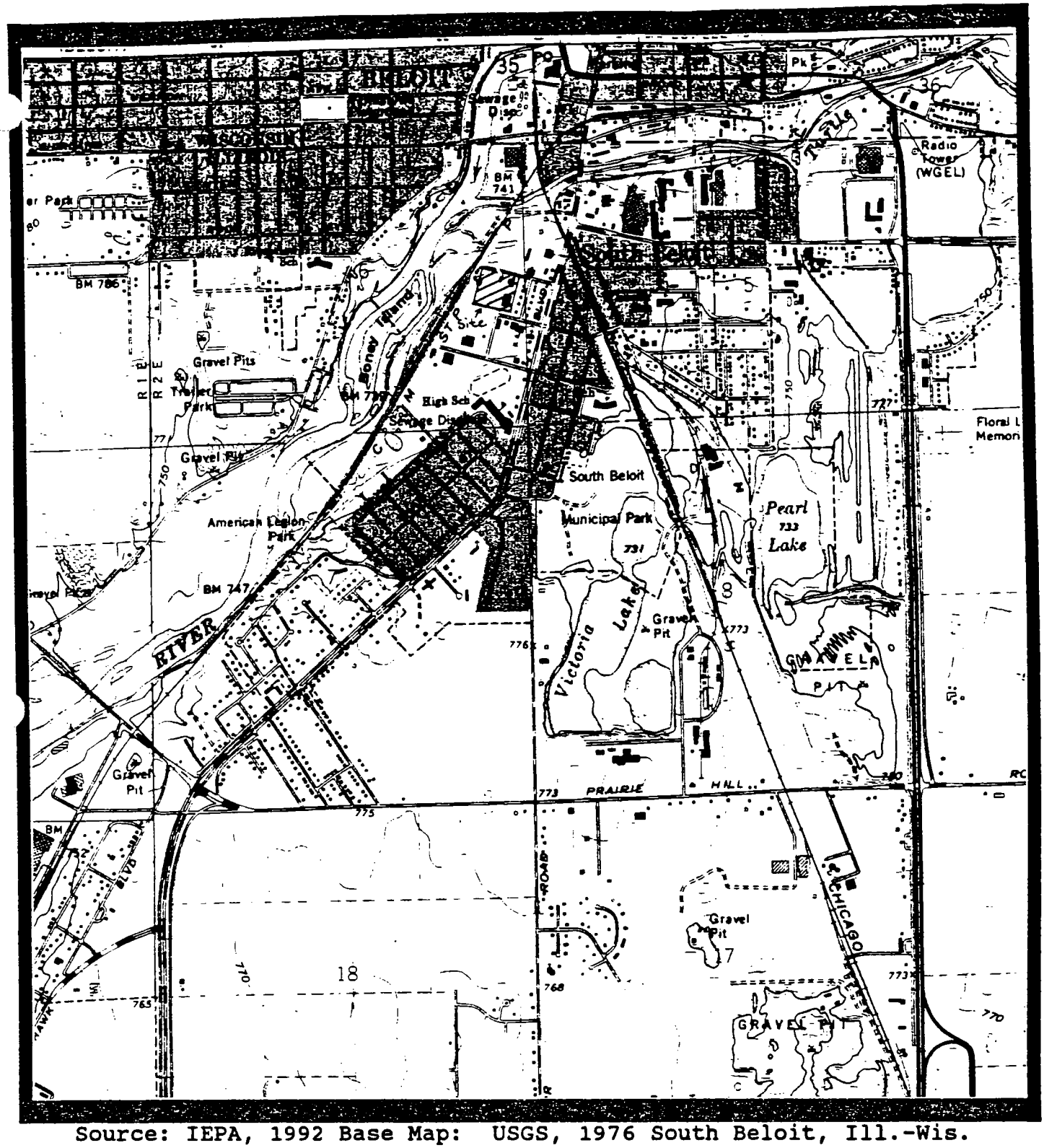
6.2 TACO GROUNDWATER OBJECTIVES

Because groundwater in the South Beloit vicinity is utilized as a potable source, contaminants are compared to Class I groundwater objectives. There were no organic contaminants that exceeded the TACO Tier I objectives. However, all of the drinking water samples had tetrachloroethene levels just below the 5 ppb objectives. However, six inorganic contaminants were well above the cleanup objectives. Lead was up to ten times the TACO objectives. The groundwater background sample had inorganic contaminants including lead (2810 ppb), chromium (226 ppb) and nickel (247 ppb) at levels over 300 times the objective values. The high inorganic levels are probably attributable to the large amounts of slag and cinder fill in the region.



SITE LOCATION

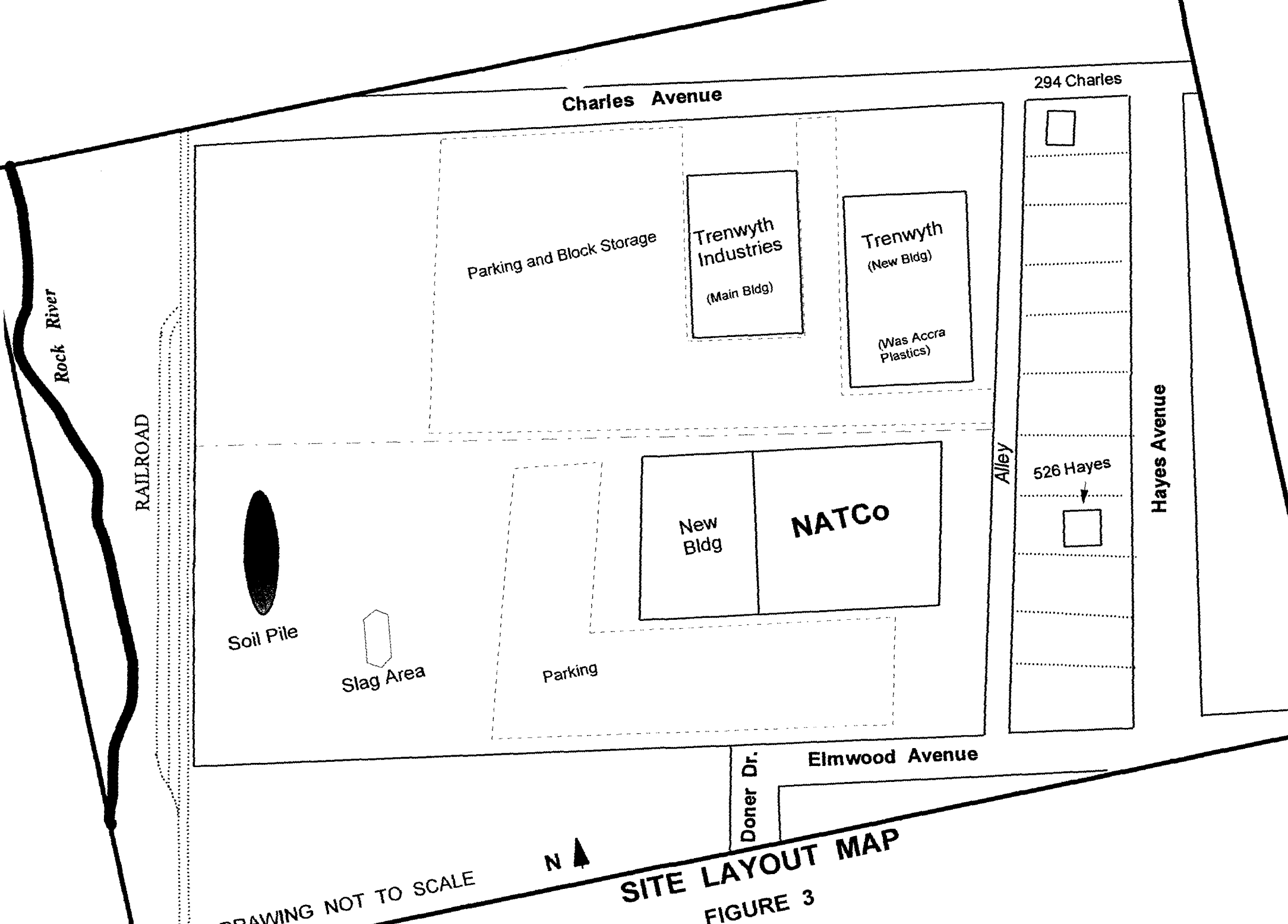
FIGURE 1



Source: IEPA, 1992 Base Map: USGS, 1976 South Beloit, Ill.-Wis.
Scale 1:24,000

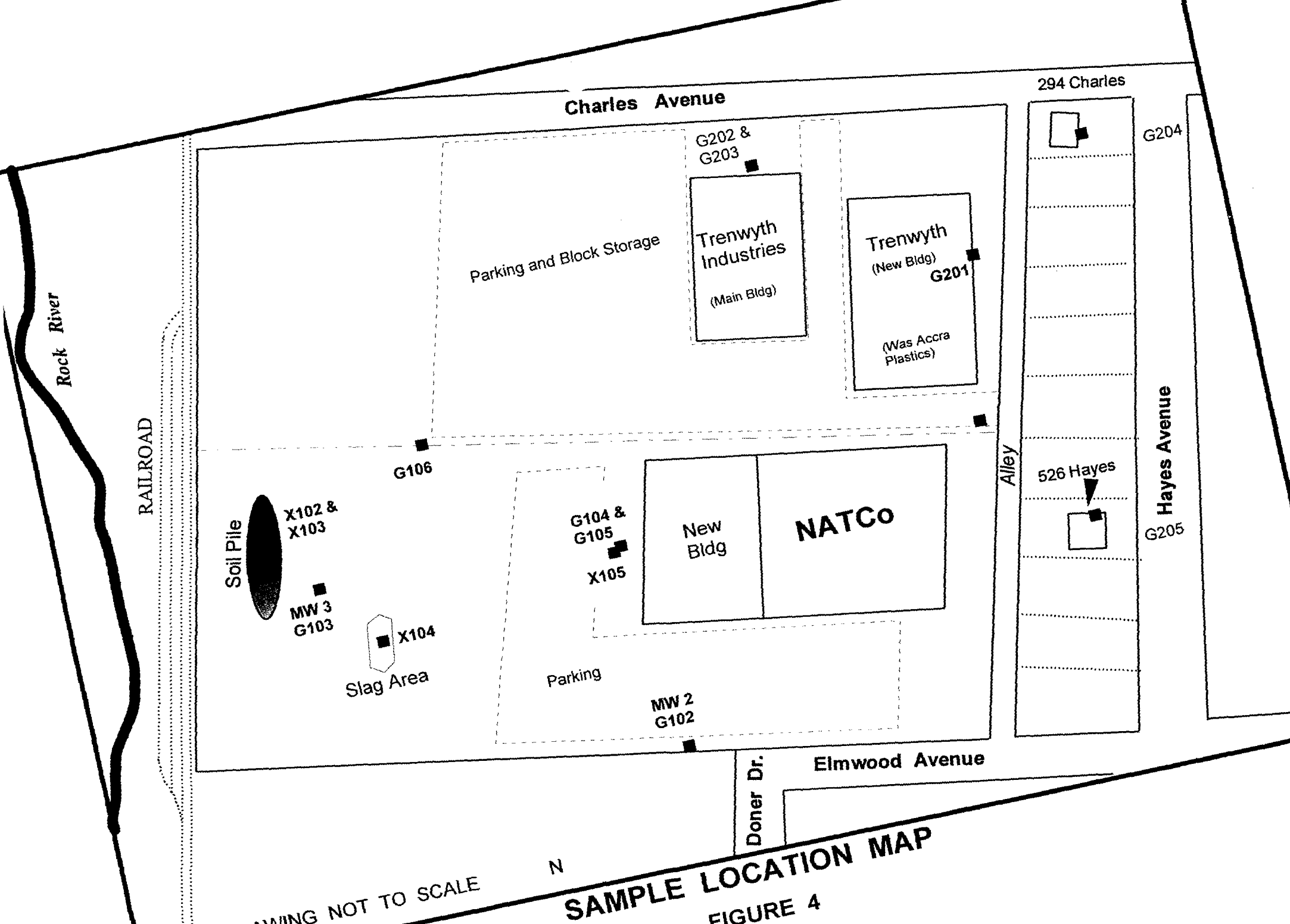
SITE LOCATION MAP

FIGURE 2



SITE LAYOUT MAP

FIGURE 3



SAMPLE LOCATION MAP

FIGURE 4

SAMPLE DESCRIPTIONS & LOCATIONS

OIL SAMPLES

SAMPLE	DEPTH	APPEARANCE	LOCATION	JUSTIFICATION
X101	12"	Sand with gravel and slag	144' north of gravel pkng lot & 46' west of bldg. Across street from Trenwyth Ind. on edge of mowed property	Background sample
X102 & X103 duplicates	2.5' to 3'	Black sandy loam	Midway along soil pile in center. 40' from south end & 9' east of west end of pile.	Characterize contaminated soil pile Duplicate Samples
X104	12"	Sand with slag	124' north of Trucking Co. south of site & 130' west of parkinglot on-site	Characterize site soils Duplicate samples
X105	12"	Silty/sandy loam w/ gravel over slag	68' west of new bldg edition & 121' north of south parking lot - same location as G104 & G105	Characterize site soils
X106 & X107 X108 & X109	SAMPLES NOT COLLECTED DUE TO SLAG			

GROUNDWATER SAMPLES

SAMPLE	WELL NUMBER	WELL DEPTH &	WATER TABLE	LOCATION	JUSTIFICATION
G101	MW1	12.8ft	5ft	Along alley between Hayes Ave. & site & between Trenwyth & NATCo	Identify potential migration to groundwater
G102	MW2	13.3ft	5.5ft	Approx 1/2 way from Donner Dr. & west edge of site along southern property line	Identify potential migration to groundwater
G103	MW3	12.5ft	4.5ft	Approx 200ft from parking lot & 150ft from southern property line	Identify potential migration to groundwater
G104 & G105	Geoprobe	12.0ft	6.0ft	In grass/tree area 68ft west of new bldg & 121ft north of parking lot	Identify potential migration to groundwater
G106	Geoprobe	8.0ft	4.0ft	In drainage ditch between Trenwyth & NATCo 160ft west of northwest corner of new bldg	Identify potential migration to groundwater
G107	Geoprobe	16.0ft	9.0ft	144' north of gravel pkng lot & 46' west of bldg. Across street from Trenwyth Ind. on edge of mowed property - same as X101 location	Background groundwater sample

DRINKING WATER SAMPLES

SAMPLE	WELL DEPTH	ADDRESS	JUSTIFICATION
G201	15 feet	Trenwyth Ind. main building	Identify potential migration to drinking water wells
G202 & G203 duplicates	less than 20	Trenwyth new building (formerly Accra Plastics)	Identify potential migration to drinking water wells (duplicate samples)
G204	less than 20	294 Charles Avenue	Identify potential migration to drinking water wells
G205	less than 20	526 Hayes Avenue	Identify potential migration to drinking water wells

TABLE 1

SAMPLE SUMMARY FOR SOILS

General Hydraulics — ILD 984767806

Date Sampled		6-24-97	6-24-97	6-24-97	6-24-97	6-24-97	
Sample Location ID	TACO Soil*	X101	X102	X103	X104	X105	SCDMs
Lab Organic Sample ID	Cleanup	EBMH8	EBMH9	EBMJ0	EBMK6	EBMK7	Soil
Lab Inorganic Sample ID	Objectives	MEAXC8	MEAXC9	MEAXD0	MEATD2	MEATD3	Cleanup
Description	(ppb)	background	[duplicate	-- samples]			Benchmarks
Location			soil	pile	slag area	new addition	(ppb)
VOLATILES (ppb)							
2-Butanone (MEK)	--	--	27.0	--	--	--	350000000
1,1,1-Trichloroethane	1200000	--	--	--	3.0 J	--	--
Trichloroethene	5000	--	--	2.0 J	--	--	5300
Tetrachloroethene	11000	--	2.0 J	--	4.0 J	--	11000
PESTICIDES (ppb)							
Heptachlor	100	--	--	--	--	1.5 J	130
Heptachlor epoxide	70	--	--	--	2.6 J	0.97 J	64
INORGANICS (ppm)	(ppm)						(ppm)
Chromium	270	12.7	--	--	97.5	--	2900
Copper	2900	22.4	67.9	66.7	118	--	
Nickel	1600	11.5	--	--	50.7	--	12000

* Cleanup Objectives were derived from the IEPA's "Tiered Approach to Corrective Action Objectives Guidance Document" (TACO). The objectives were taken from Appendix B: Table A for Residential Properties and is based on Class I Groundwater.

J Indicates an estimated concentration

SCDMs - Superfund Chemical Data Matrix

TABLE 2

SAMPLE SUMMARY FOR GROUNDWATER

General Hydraulics — ILD 984767806

Date Sampled	6-24-97	6-24-97	6-24-97	6-24-97	6-24-97	6-24-97	6-24-97	TACO*	USEPA - SCDMs
	[---------- Monitoring Wells ----------]			[---------- Geoprobe Samples ----------]					
Sample Location ID	G101	G102	G103	G104	G105	G106	G107	Groundwater	Groundwater
Lab Organic Sample ID	EBJN9	EBJP0	EBJP1	EBJP2	EBJP3	EBJP4	EBJP5	Cleanup	Cleanup
Lab Inorganic Sample ID				MEATD5	MEATD6	MEATD7	MEAXG7	Objectives	Objectives
Description	VOA Only	VOA Only	VOA Only	[duplicate --	samples]		background	(ppb)	(ppb)
Location	MW1	MW2	MW3	New Addition		Ditch			
VOLATILES (ppb)									
1,1-Dichloroethene	--	1.0 J	--	2.0 J	2.0 J	--	--	60	7
1,1-Dichloroethane	--	5.0 J	--	12.0	12.0	--	--	23000	3500
1,2-Dichloroethene(total)	--	2.0 J	--	4.0 J	4.0 J	--	--	20	70
1,1,1-Trichloroethane	--	42.0	--	80.0	69.0	6.0 J	--	2000	200
Trichloroethene	--	--	--	2.0 J	2.0 J	--	--	60	5
SEMIVOLATILES (ppb)									
Di-n-Butylphthalate	--	--	--	--	0.6 J	--	--	2300	3500
INORGANICS (ppb)									
Cadmium	--	--	--	--	--	--	13.9	5	5
Chromium	--	--	--	11.6	9.4 B	27.0	226.0	100	100
Lead	--	--	--	102.0	70.0	10.5	2810.0	7.5	15
Manganese	--	--	--	447.0	389.0	1380.0	5320.0	150	
Nickel	--	--	--	--	--	21.1 B	247.0	100	100
Vanadium	--	--	--	15.4 B	15.1 B	48.0 B	346.0	49	

* Cleanup Objectives were derived from the IEPA's "Tiered Approach to Corrective Action Objectives Guidance Document" (TACO). The objectives were taken from Appendix B: Table A for Residential Properties and is based on Class I Groundwater.

J Indicates an estimated concentration

B Indicates Concentration is below CRDL but above IDL

SCDMs - Superfund Chemical Data Matrix

TABLE 3

SAMPLE SUMMARY FOR DRINKING WATER

General Hydraulics — ILD 984767806

Date Sampled		6-25-97	6-25-97	6-25-97	6-25-97	6-25-97	
Sample Location ID	TACO*	G201	G202	G203	G204	G205	USEPA - SCDMs
Lab Organic Sample ID	Direct Ingestion	EBZC6	EBZC7	EBZD1	EBZC5	EBZC8	Drinking Water
Lab Inorganic Sample ID	Groundwater	97IE06SO1	97IE06SO2	97IE06DO2	97IE06S03	97IE06SO4	Cleanup
Description	Cleanup Objectives		[duplicate -- samples]				Objectives
Location		Trenwyth 2	Trenwyth 1		Charles St.	Hayes St.	
VOLATILES (ppb)							
Acetone	700	--	--	--	--	10	3500
Tetrachloroethene	5	3	4	4	4	2	5
INORGANICS (ppb)							
PH							
Barium	2000	50.4	49.6	49.5	53.2	58.2	2000
Copper	650	--	--	--	9.1	--	1300
Magnesium	--	35800	36100	36300	36500	40000	--
Selenium	50	--	0.6	--	--	--	50

* Cleanup Objectives were derived from the IEPA's "Tiered Approach to Corrective Action Objectives Guidance Document" (TACO). The objectives were taken from Appendix B: Table E for Direct Ingestion of Groundwater and is based on Class I Groundwater.

SCDMs - Superfund Chemical Data Matrix

TABLE 4

SITE NAME:	General Hydraulics STEP		
ILD 984767806		COUNTY:	Winnebago

DATE:	June 24/97
TIME:	0945
PHOTO by:	Ted Prescott
Roll / Photo # :	Photo 1
Sample :	G104 & G105
Direction:	EAST to new bldg

COMMENTS:

Used Geoprobe to bore 8ft hole
Sample collected at 6ft depth

PID & FID @ background

Water at 6ft depth

DATE:	June 24/97
TIME:	1145
PHOTO by:	Ted Prescott
Roll / Photo #:	Photo 2
SAMPLE #	G104 & G105
Direction:	West

Comments:

See above

SITE NAME:	General Hydraulics STEP		
ILD 984767806		COUNTY:	Winnebago

DATE:	June 24/97
TIME:	1030
PHOTO by:	Ted Prescott
Roll / Photo # :	Photo 5
Sample :	G102
Direction:	West
COMMENTS:	
Monitoring Well MW #2 located in field	
west of new bldg.	
Well depth 22 feet	
FID & PID at bkgnd	
Orange fence IDs soil pile.	

DATE:	June 24/97
TIME:	1030
PHOTO by:	Ted Prescott
Roll / Photo #:	Photo 6
SAMPLE #	G102
Direction:	East
Comments:	
see above	

SITE NAME:	General Hydraulics STEP	
ILD 984767806	COUNTY:	Winnebago

DATE:	June 24/97
TIME:	1100
PHOTO by:	Ted Prescott
Roll / Photo # :	Photo 7
Sample :	G103
Direction:	WEST
COMMENTS:	
Geoprobe used to bore to 8 feet	
Water at 2 feet.	
Sample collected at 6 feet.	
Collected in ditch near former MW#4	
between Trenwyth & NATCo	

DATE:	June 24/97
TIME:	1100
PHOTO by:	Ted Prescott
Roll / Photo #:	Photo 8
SAMPLE #	G103
Direction:	East
Comments:	
See above	

SITE NAME:	General Hydraulics STEP	
ILD 984767806	COUNTY:	Winnebago

DATE:	June 24/97
TIME:	1130
PHOTO by:	Ted Prescott
Roll / Photo # :	Photo 9
Sample :	G103
Direction:	East
COMMENTS:	
Monitoring Well MW #3 located along north property lin between both parcels.	
Well depth 23 feet	
FID & PID at bkgnd	

DATE:	June 24/97
TIME:	1130
PHOTO by:	Ted Prescott
Roll / Photo #:	Photo 10
SAMPLE #	G103
Direction:	West
Comments:	
See above	

SITE NAME:	General Hydraulics	STEP
ILD 984767806	COUNTY:	Winnebago

DATE:	June 24/97
TIME:	1300
PHOTO by:	Ted Prescott
Roll / Photo # :	Photo 11
Sample :	G107
Direction:	North
COMMENTS:	Bkgnd water
Collected NE of site.	
Geoprobe to 12 feet	
Water at 6 ft	
Sample collected at 8 feet.	

DATE:	June 24/97
TIME:	1300
PHOTO by:	Ted Prescott
Roll / Photo #:	Photo 12
SAMPLE #	G107
Direction:	South
Comments:	
see above	

SITE NAME: General Hydraulics STEP

ILD 984767806 | COUNTY: Winnebago

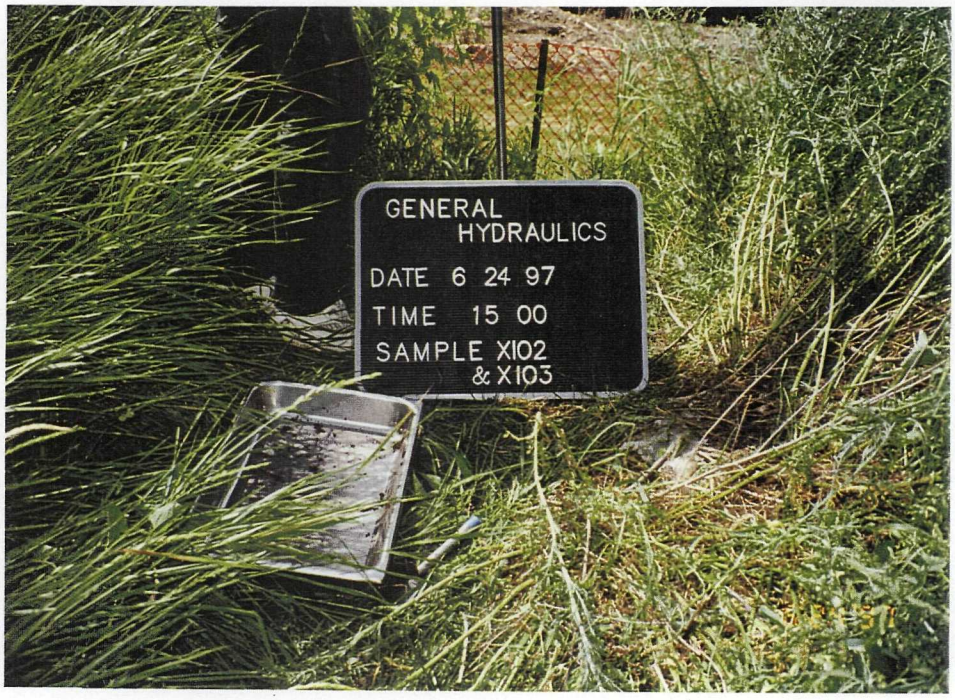
DATE:	June 24/97
TIME:	1430
PHOTO by:	Ted Prescott
Roll / Photo # :	Roll 2, Photo 1
Sample :	X105
Direction:	EAST to new bldg
COMMENTS:	
Soil sample collected west of new bldg.	
near location of G104 & G105	

DATE:	June 24/97
TIME:	1430
PHOTO by:	Ted Prescott
Roll / Photo #:	Roll 2, photo 2
SAMPLE #	X105
Direction:	West
Comments:	
See above.	

SITE NAME: General Hydraulics STEP

ILD 984767806 | COUNTY: Winnebago

DATE:	June 24/97
TIME:	1500
PHOTO by:	Ted Prescott
Roll / Photo # :	Roll 2, Photo 3
Sample :	X102 & X103
Direction:	West
COMMENTS:	
Collected from center of soil pile.	



DATE:	June 24/97
TIME:	1500
PHOTO by:	Ted Prescott
Roll / Photo #:	Roll 2, photo 4
SAMPLE #	X102 & X103
Direction:	East
Comments:	
See above	

SITE NAME:	General Hydraulics	
ILD 984767806	COUNTY:	Winnebago

DATE:	June 24/97
TIME:	1515
PHOTO by:	Ted Prescott
Roll / Photo # :	Roll 2 photo 5
Sample :	X104
Direction:	West
COMMENTS:	
Collected in slag area - in field west of new building.	

DATE:	June 24/97
TIME:	1515
PHOTO by:	Ted Prescott
Roll / Photo #:	Roll 2 photo 6
SAMPLE #	X104
Direction:	East
Comments:	
See Above	

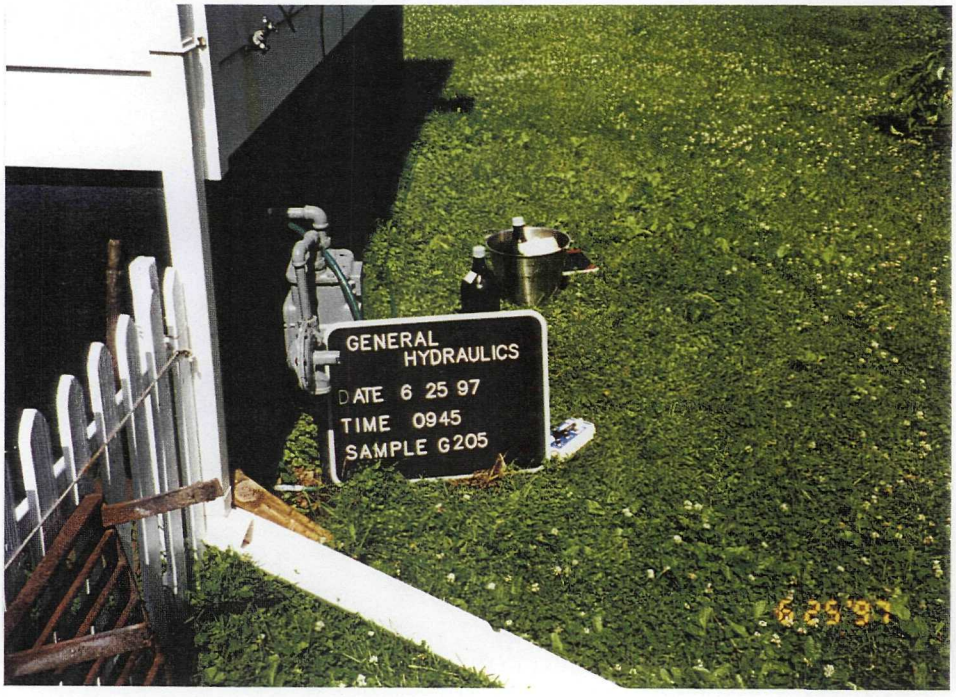
SITE NAME:	General Hydraulics STEP	
ILD 984767806	COUNTY:	Winnebago

DATE:	June 24/97
TIME:	1600
PHOTO by:	Ted Prescott
Roll / Photo # :	Roll 2 photo 7
Sample :	X101
Direction:	East
COMMENTS:	
Background soil collected in same place as G107 backgnd water.	

DATE:	June 24/97
TIME:	1600
PHOTO by:	Ted Prescott
Roll / Photo #:	Roll 2 photo 8
SAMPLE #	X101
Direction:	West
Comments:	
Bkgnd soil sample See above.	

SITE NAME:	General Hydraulics	STEP
ILD 984767806	COUNTY:	Winnebago

DATE:	June 25/97
TIME:	0945
PHOTO by:	Ted Prescott
Roll / Photo # :	Roll 2 photo 9
Sample :	G205
Direction:	South
COMMENTS:	
Residential sample along Hayes Ave.	

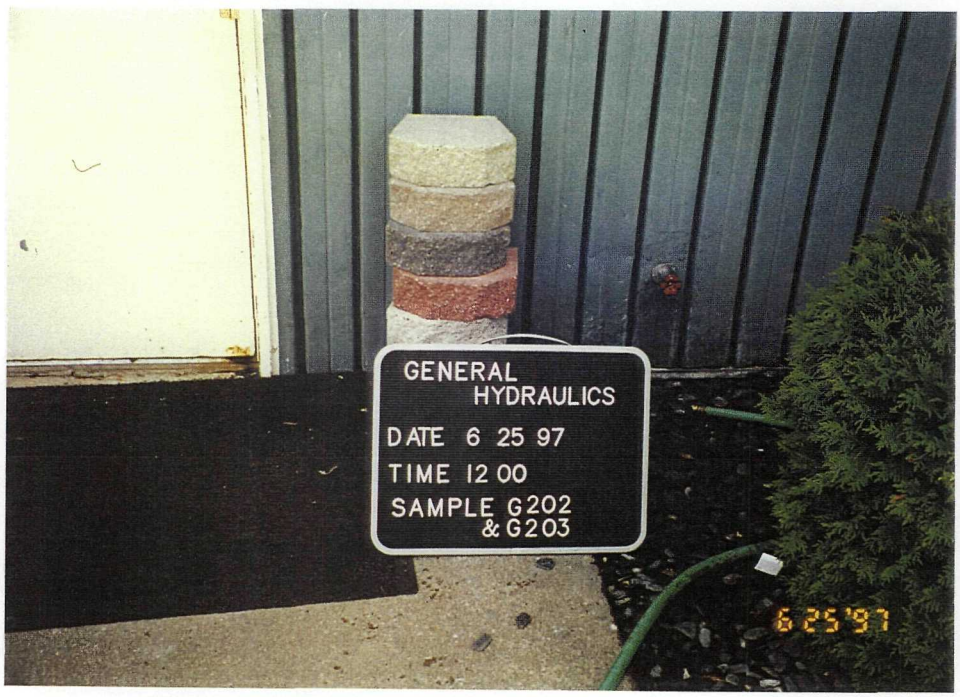


DATE:	June 25/97
TIME:	0945
PHOTO by:	Ted Prescott
Roll / Photo #:	Roll 2 photo 10
SAMPLE #	G205
Direction:	North
COMMENTS:	
See Above.	

SITE NAME:	General Hydraulics	STEP
ILD 984767806	COUNTY:	Winnebago

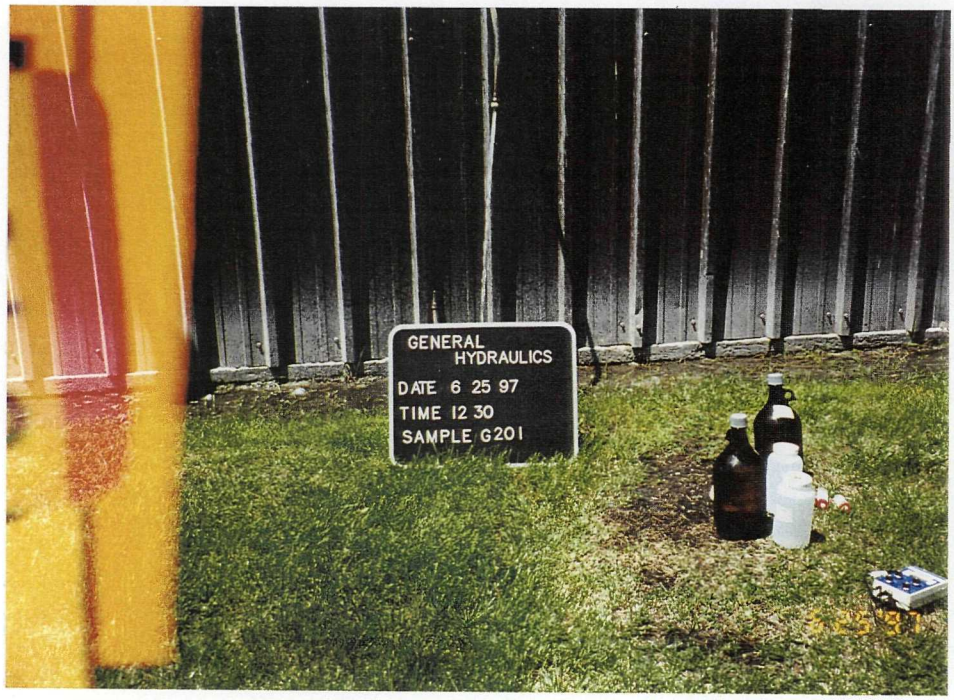
DATE:	June 25/97
TIME:	1030
PHOTO by:	Ted Prescott
Roll / Photo # :	Roll 2 photo 11
Sample :	G204
Direction:	South
COMMENTS:	
Residential well along Charles Ave.	

DATE:	June 25/97
TIME:	1200
PHOTO by:	Ted Prescott
Roll / Photo #:	Roll 2 photo 12
SAMPLE #	G202 & G203
Direction:	East
Comments:	
Collected from Trenwyth main building	



SITE NAME:	General Hydraulics	STEP
ILD 984767806	COUNTY:	Winnebago

DATE:	June 25/97
TIME:	1230
PHOTO by:	Ted Prescott
Roll / Photo # :	Roll 2 photo 13
Sample :	G201
Direction:	SOUTH
COMMENTS:	
Collected from Trenwyth bldg # 2	



DATE:	
TIME:	
PHOTO by:	
Roll / Photo #:	
SAMPLE #	
Direction:	
Comments:	